THE MINERAL INDUSTRY OF IRAQ

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In 2003, the military action (known as the Iraq War, Operation Iraqi Freedom, or Operation Telic) that started on March 20 had a severe impact on the mineral industry of Iraq. After cessation of initial hostilities, the provisional Government set out to rehabilitate the industrial sector and associated infrastructure, especially the petroleum, power, and potable water segments. In May, United Nations Security Council Resolution 1483 lifted sanctions against Iraq. Crude oil exports under United Nations Security Council Resolution 986 (known as the Oil for Humanitarian Aid Agreement or the oil-for-food program) continued until November 2003.

Iraq's gross domestic product (GDP) based on purchasing power parity valuation was estimated to be about $37.9 million, and GDP per capita based on purchasing power parity valuation was estimated to be $1,500 (U.S. Central Intelligence Agency, 2004§[1]). Oil production and refining accounted for a significant proportion of the GDP. With the exception of cement, production of other mineral and mineral-based commodities was negligible.

Commodity Review

Metals

Reports of exports of large volumes of scrap metal from Iraq surfaced in mid-May. Exports were primarily brass (from melted ammunition casings), copper (in the form of electric power cable), and stainless steel. An estimated $1.7 million worth of copper cable was ripped from the country's electricity transmission network, which severely reduced industrial and residential power availability. A notable decline of oil exports in August was attributed to the power cuts to the oil refineries, pumping stations, and shipping terminals. The use of depleted uranium munitions during the war and the associated potential for radioactive contamination of scrapped Iraqi tanks and trucks resulted in the attempt by Iran, Kuwait, Jordan, and the United Arab Emirates to ban the importation of ferrous military scrap from Iraq in 2003 (Metal Bulletin, 2003; Conway, 2003a§, b§; Georgy, 2003§).

Industrial Minerals

The sulfur stockpile of the Mishraq Sulfur State Enterprise was ignited in June, apparently maliciously. Local firefighters and military troops battled the blaze for almost a month before they were able to extinguish the fire completely (U.S. National Aeronautics and Space Administration, 2003§).

Mineral Fuels

Looting and sabotage of oil facilities and pipelines slowed the rehabilitation of the petroleum sector. The U.S. Army Corps of Engineers estimated that the cost of war damage was $475 million and that cost attributed to looting during March, April, and May alone was $943 million. Production from the Daura refinery resumed in April. In May, production was restarted at the Baiji refining complex and the Basra refinery. All three refineries operated at less than nameplate capacity because of variable crude oil supply, electrical power shortages, looting, and years of spare-parts shortages under the United Nations' sanctions that had resulted in jury-rigged operations (Lorenzetti and Watkins, 2003; Slevin, 2003; Middle East North Africa Financial Network, Inc., 2003§).

The Oil Ministry reported that oil production was limited by export capacity. Oil exports via the southern port of Mina al-Bakr resumed in July and via the northern pipeline to Ceyhan, Turkey, in August, but an explosion and fire closed the northern pipeline 3 days after pumping resumed. By yearend, oil exports via the southern port were about 1.9 million barrels per day, which was almost the pre-war level. Repairs of the northern pipeline continued through yearend. In 2003, an average of 481,000 barrels per day (bbl/d) of exported Iraqi crude oil reached the United States and accounted for about 5% of gross U.S. crude oil imports. The U.S. Energy Information Administration (2004a, b) reported that the United States imported an average of 459,000 bbl/d from Iraq in 2002 and 795,000 bbl/d in 2001. Additional coverage of the Iraqi petroleum sector is available in the Iraq country analysis brief prepared by the U.S. Energy Information Administration (2004§) (Gavin, 2004; Tippee, 2003; Hacaoglu and Stanley, 2003§).

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[1]References that include a section mark (§) are found in the Internet References Cited section.

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TABLE 1
IRAQ: ESTIMATED PRODUCTION OF MINERAL COMMODITIES [1, 2]

(Thousand metric tons unless otherwise specified)

Commodity[3]		1999	2000	2001	2002	2003
METALS						
Steel, crude		50	50	50	-- [r]	--
INDUSTRIAL MINERALS						
Cement, hydraulic:						
Portland		5,000 [r]	6,000 [r]	6,000 [r]	6,834 [r, 4]	1,000
White		200 [r]	175 [r]	175 [r]	175 [r]	50
Nitrogen, N content of ammonia		220	200	280 [r]	532 [r, 4]	--
Phosphate rock, beneficiated, phosphorus pentoxide content		300	200	100	100	10
Salt		300	300	300	203 [r, 4]	50
Sulfur, elemental:						
Native, Frasch		98	300 [r]	300 [r]	300 [r]	50
Byproduct[5]		2	2	2	2	1
Total		100	302 [r]	302 [r]	302 [r]	51
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural:						
Gross	million cubic meters	7,000	7,500	7,000	7,000	4,000
Dry	do.	2,800	3,000	2,920	2,900	1,500
Natural gas plant liquids	thousand 42-gallon barrels	3,000	4,000	4,000	4,000	2,000
Petroleum:						
Crude, including lease condensate	do.	915,000 [4]	937,000	860,000	740,000	490,000
Refinery products	do.	125,000	140,000	170,000	170,000	50,000

[r]Revised. -- Zero.
[1]Includes data available through September 2004.
[2]Estimated data are rounded to no more than three significant digits.
[3]In addition to commodities listed, the following also may have been produced but information is inadequate to estimate output: secondary aluminum, clay, fertilizers, gypsum, secondary lead, lime, limestone, industrial (glass or silica) sand, sand and gravel, and stone.
[4]Reported figure.
[5]Presumably from petroleum and natural gas processing.